5

10

15

ABSTRACT

Method and apparatus for synchronizing the transmitting side and the receiving side in an IP network that uses a stream encryption algorithm are disclosed. A sequence number is introduced into the payload of each packet at the transmitting side and transmitted with the packets. Upon receipt at the receiving side, the sequence number is extracted from the payload and used to synchronize the receiving side to the transmitting side. An error detection mechanism is used to detect when the synchronization is lost and a recovery procedure is initiated. The length of the sequence number is made sufficiently long to cope with any jitter variations in the IP network. This sequence number length is dynamically adjustable based on the amount of jitter detected in the network.